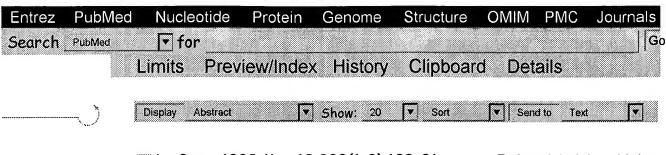






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□1: Gene. 1999 Mar 18;229(1-2):183-91.

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Translation elongation factor 2 is encoded by a single essential gene in Candida albicans.

Mendoza A, Serramia MJ, Capa L, Garcia-Bustos JF.

PubMed Services

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Translation elongation factor 2 (eEF2) is a large protein of more

than 800 amino acids which establishes complex interactions with the ribosome in order to catalyze the conformational changes needed for translation elongation. Unlike other yeasts, the pathogenic fungus Candida albicans was found to have a single gene encoding this factor per haploid genome, located on chromosome 2. Expression of this locus is essential for vegetative growth, as evidenced by placing it under the control of a repressible promoter. This C. albicans gene, named EFT2, was cloned and sequenced (EMBL accession number Y09664). Genomic and cDNA sequence analysis identified common transcription initiation and termination signals and an 842 amino acid open reading frame (ORF), which is interrupted by a single intron. Despite some genetic differences, CaEFT2 was capable of complementing a Saccharomyces cerevisiae Deltaeft1 Deltaeft2 null mutant, which lacks endogenous eEF2, indicating that CaEFT2 can be expressed from its own promoter and its intron can be correctly spliced in S.

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